

19 33. (new) The thin film magnetic recording head of claim 32 wherein the write gap is between about .10 microns and about .25 microns in width.

20 34. (new) The thin film magnetic recording head of claim 33 wherein the preconditioning gap is approximately .5 micron in width.

35. (new) The thin film magnetic recording head of claim 31 wherein each of said gaps comprises a pair of pole pieces surrounding at least a portion of said coil.

36. (new) The thin film magnetic recording head of claim 35 wherein said gaps share a common pole piece, said head thereby having three pole pieces to form said two gaps.

37. (new) The thin film magnetic recording head of claim 36 wherein said pole pieces comprise a first pole piece P_1 , a second pole piece P_2 having said coil wrapped therearound and having an end thereof magnetically coupled to P_1 , and a third pole piece P_3 having an end thereof magnetically coupled to P_2 .

38. (new) The thin film magnetic recording head of claim 37 wherein P_3 is magnetically coupled to P_2 through a portion of P_1 .

39. (new) The thin film magnetic recording head of claim 30 wherein said coil is a thin film pancake coil.

40. A thin film magnetic recording head comprising at least a first pole piece P_1 , a second pole piece P_2 , and a third pole piece P_3 , wherein P_2 and P_3 are magnetically coupled to P_1 at different positions along the length of P_1 .

41. (new) The thin film magnetic recording head of claim 40 wherein said head comprises a write gap between P_1 and P_2 and a preconditioning gap between P_2 and P_3 .

42. (new) The thin film magnetic recording head of claim 41 wherein the write gap is aligned with the preconditioning gap.

43. (new) The thin film magnetic recording head of claim 42 wherein said preconditioning gap is wider than said write gap.

44. (new) The thin film magnetic recording head of claim 42 wherein P_3 is connected to an end of P_1 and P_2 is connected to a medial portion of P_1 .

45. (new) The thin film magnetic recording head of claim 44 further comprising a thin film head coil for magnetically energizing both of said write and preconditioning gaps.

46. (new) The thin film magnetic recording head of claim 45 wherein P₂ is magnetically coupled to P₁ through a center of said coil.

47. (new) The thin film magnetic recording head of claim 46 wherein P₃ is magnetically coupled to P₂ through a portion of P₁.

48. (new) In a thin film magnetic recording head having a pancake magnetic coil, a first pole piece P₁ underlying a first half of said magnetic coil, and a second pole piece P₂ overlying the first half of said magnetic coil, the pole pieces P₁ and P₂ together defining a write gap, the improvement comprising an extension of P₁ that underlies substantially all of the magnetic coil, and a third pole piece P₃ that overlies a second half of the magnetic coil and P₂, the pole pieces P₂ and P₃ together defining a preconditioning gap.

49. (new) The improved thin film magnetic recording head of claim 48 wherein said coil is a substantially helically wound pancake magnetic coil.

~~50. (new) The improved thin film magnetic recording head of claim 48 wherein P₃ is magnetically coupled to P₂ through a portion of P₁.~~

51. (new) A thin film magnetic recording head comprising at least one pole piece that extends across substantially all of the windings of a pancake coil.

Remarks

This Amendment is intended to place the subject application in condition for allowance. In response to the Office Action of Paper No. 3 and the rejections set forth therein, original claims 18-29, which were *not* limited to thin film magnetic recording heads, have been cancelled. Additionally, new claims 30-51 have been substituted for original claims 1-10. Thus, claims 11-17 and 30-51 are now pending.

The written description has been amended for purposes of clarity and to correct typographical errors noticed by Applicant. The title of the application has also been amended to clarify that the subject invention relates to a *thin film* magnetic write head with a preconditioning gap. No new matter has been added.

The clear patentability of all of the pending claims will now be explained with reference to the structural limitations of those claims, the admitted prior art of Figures 1 and 2, the Jeffers and Russian patent references, and the teachings of the present invention.